



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/589,334

04/02/2007

Kenji Arai

20696-00100-US1

6528

30678

7590

03/05/2009

CONNOLLY BOVE LODGE & HUTZ LLP  
1875 EYE STREET, N.W.  
SUITE 1100  
WASHINGTON, DC 20006

EXAMINER

DAMON, ELI

ART UNIT

PAPER NUMBER

4152

MAIL DATE

DELIVERY MODE

03/05/2009

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/589,334	<b>Applicant(s)</b> ARAI ET AL.	
	<b>Examiner</b> ELI DAMON	<b>Art Unit</b> 4152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>08/14/2006</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. The earliest effective filing date is 02/13/2004.

### ***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on 08/14/2006 was received. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Objections***

3. Claim 1 is objected to because of the following informalities: The word "timing" is not appropriate in this context. Perhaps the applicants intended the word "time". Appropriate correction is required.
4. Claim 4 is objected to because of the following informalities: The phrase "in advance" is indefinite. The applicants should name an event in advance of which the default data is stored. Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**6. Claims 1 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata (Japanese Patent No. 2003-056398) in view of Okada (U.S. Patent No. 7203581).**

7. In regard to Claim 1, Shibata discloses the following limitations:

- a. *A method of backing up vehicular data in a vehicular system...* (Column 5: Lines 10-20)
- b. The system includes *...at least one electronic unit including a data storing function...* (Column 5: Lines 10-20)
- c. Data can be transferred from either of two components of the vehicle to the other component *...via a vehicular communication network at an appropriate [time]...* (Column 5: Lines 10-20)
- d. When a component of the vehicle is replaced, *...the backup data is transferred via the vehicular communication network...* to the new component.  
(Column 5: Lines 10-20)

However, Shibata does not disclose

- e. The system ...*includes an engine electronic control unit for controlling an engine...*

Nevertheless, Okada discloses Limitation (e) in the context of a backup system that is internal to the engine controller (Column 4: Lines 32-36).

Okada's teaching clearly concerns a device that is similar to the claimed invention. Furthermore, Okada's teaching demonstrates that (1) applying a digital controller to a motor vehicle engine and (2) including this controller in a backup system so as to ensure that the data used to regulate the engine, the most critical and essential component of the vehicle, is always valid and timely, were known techniques at the time of invention. In view of the KSR v. Teleflex Supreme Court case, it would have been obvious to combine the teaching of Okada with those of Shibata since doing so would have constituted the use of a known technique to improve similar devices. (See MPEP 2141(III).)

8. In regard to Claim 5, Shibata discloses the two additional limitations:

- f. ...*[A] non-volatile memory is disposed in the electronic unit...* (Column 7: Lines 47-50, Column 8: Lines 1-8)
- g. ...*[T]he backup data is stored in the non-volatile memory.* (Column 7: Lines 47-50, Column 8: Lines 1-8)

This claim is thus rejected by the same reasoning as for Claim 1.

9. **Claims 2 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata and Okada as applied to Claims 1 and 5 above respectively, and further in view of Merrill (U.S. Patent No. 6173417).**

10. Note that the phrase

*can recognize the fact that this is the first time the engine electronic control unit has been installed in a vehicle*

from Claim 2 fails to properly limit the claims. Based on its meaning, the term “can” does not limit a claim to a particular structure, nor recite functionally limiting language, nor recite required steps to be performed. It appears that the language is equivalent to “adapted to” which merely “allows” and makes optional something to happen or a feature to exist but does not necessitate it. Accordingly, it does not further limit the claim. Therefore, patentable weight is not given to the relevant features. See MPEP 2111.04.

11. In regard to Claim 2, Shibata and Okada collectively disclose all limitations (a)-(e) of Claim 1. Neither Shibata nor Okada discloses the following two additional limitations:

- h. The *engine electronic control unit* includes ...*a flag that can recognize the fact that this is the first time the engine electronic control unit has been installed in a vehicle...*
- i. ...[T]he *transfer of backup data is conducted in reference to the flag.*

Nevertheless, Merrill discloses Limitations (h) and (i) in the context of a computer operating system (Column 6: Lines 30-35). A computer operating system and a system for backing up data from a digital engine controller both lie in the technological field or art of digital systems. Furthermore, Merrill's teachings demonstrate that the features of (1) a preset flag included in a component of a digital system that indicates whether the component has been in operation previously and (2) the system conducting data transfers in reference to it, or the method defined by the inclusion of these features, were known in this field or art at the time of invention.

These are simple and common features in digital systems for triggering a one-time initialization routine to perform such tasks as, for example, loading default data. The result of including them in the context of backing up data from a digital engine controller would have been immediately predictable to one skilled in the art at the time of invention. In view of the KSR v. Teleflex Supreme Court case, it would have been obvious to combine the teachings of Merrill with those of Shibata and Okada since doing so would have

constituted combining prior art elements according to known methods to yield predictable results. (See MPEP 2141(III).)

12. Claim 6 recites similar limitations as Claim 5. Therefore, it is rejected under the same reasoning.

13. **Claims 3, 4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shibata, Okada, and Merrill as applied to Claims 2 and 6 above respectively, and further in view of Ueltzen (U.S. Patent No. 5430793).**

14. In regard to Claim 3, Shibata, Okada, and Merrill collectively disclose all limitations (a)-(e), (h), and (i) of Claim 2. Neither Shibata, Okada nor Merrill discloses

j. If the existing backup data is missing or invalid when a new *engine electronic control unit* is installed, ...*the engine electronic control unit is initialized with default data.*

Nevertheless, Ueltzen discloses Limitation (j) in the context of a modem (Column 7: Lines 12-18). A modem and a system for backing up data from a digital engine controller both lie in the technological field or art of digital systems. Furthermore, Ueltzen's teachings demonstrate that the feature of a component being initialized with default data in the event that valid data



supplied by the operator or environment is unavailable, or the technique of including this feature, was known in this field or art at the time of invention. This is a simple and common feature in digital systems for ensuring that a component always contains valid data. The result of including it in the context of backing up data from a digital engine controller would have been immediately predictable to one skilled in the art at the time of invention. In view of the KSR v. Teleflex Supreme Court case, it would have been obvious to combine the teachings of Ueltzen with those of Shibata, Okada, and Merrill since doing so would have constituted combining prior art elements according to known methods to yield predictable results. (See MPEP 2141(III).)

15. In regard to Claim 4, Ueltzen discloses the additional limitation

k. *...[T]he default data is stored in advance in a memory in the engine electronic control unit.* (Column 7: Lines 12-18)

This claim is thus rejected by the same reasoning as for Claim 3.

16. Claims 7 and 8 recite similar limitations as Claim 5. Therefore, they are rejected under the same reasoning.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eli Damon whose telephone number is 571-270-7760. The examiner can normally be reached on Monday through Friday, from 8:00AM to 5:00PM, alternate Fridays, Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dennis Chow can be reached on 571-272-7767. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/E. D./  
Examiner, Art Unit 4152

/DENNIS-DOON CHOW/  
Supervisory Patent Examiner, Art Unit 4173